

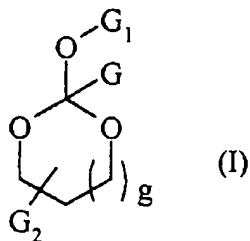
AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-16. (Canceled)

17. (Currently Amended) A composition comprising at least one acid-sensitive compound, or a salt thereof, wherein the at least one acid-sensitive compound, or a salt thereof comprises comprising a (a) cyclic ortho-ester and (b) at least one hydrophilic substituent chosen from polyalkylene glycols, monosaccharides, polysaccharides, hydrophilic therapeutic molecules, or linear or branched alkyls, wherein each linear or branched alkyl comprises at least 3 carbon atoms, wherein at least one of the methylene groups is optionally replaced with an amino group that is optionally substituted with at least one methyl group, and wherein at least one terminal methyl group of said linear or branched alkyl is substituted with at least one primary amine, secondary amine, tertiary amine, quaternary amine, guanidine or cyclic guanidine; and
the composition comprises at least one pharmaceutically acceptable vehicle.

18. (Currently Amended) The composition according to Claim 17, comprising at least one acid-sensitive compound of formula (I):



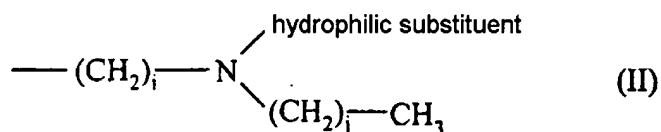
or a salt thereof,

wherein:

- g is an integer chosen from 0, 1, 2, 3 or 4,
- G is a hydrogen atom, a straight or branched alkyl group comprising 1 to 6 carbon atoms optionally comprising at least one unsaturation, or an aryl group,
- G₁ and G₂ is a pair of substituents chosen from one of the following substituent pairs:

(a) wherein one substituent is a hydrophilic substituent chosen from a linear or branched alkyl group comprising at least 3 carbon atoms, wherein at least one of the methylene groups is optionally replaced with an amino group that is optionally substituted with at least one methyl group, and wherein at least one terminal methyl group of said linear or branched alkyl groups are substituted with at least one primary amine, secondary amine, tertiary amine, quaternary amine, guanidine, or cyclic guanidine, and the other substituent is a hydrophobic substituent chosen from single-chain alkyls, double-chain alkyls, steroid derivatives, or hydrophobic dendrimers;

(b) or wherein one substituent is a hydrophobic linear alkyl group comprising 10 to 24 carbon atoms and optionally comprising at least one unsaturations, and the other substituent is a group of formula (II):



wherein i is an integer ranging from 1 to 4, j is an integer ranging from 9 to 23, and said hydrophilic substituent of formula (II) is a linear or branched alkyl comprising at least 3 carbon atoms, wherein at least one of the methylene groups is optionally replaced with an amino group that is optionally substituted, and wherein at least one terminal methyl

group of said linear or branched alkyl is substituted with at least one primary amine, secondary amine, tertiary amine, quaternary amine, guanidine, or cyclic guanidine;

(c) or wherein one substituent is a hydrophilic polyalkylene glycol, a monosaccharide, or a polysaccharide, and the other substituent is a polyalkylene imine;

(d) or wherein one substituent is a polyalkylene glycol, monosaccharide, or polysaccharide, and the other substituent is a single-chain alkyl, double-chain alkyl, steroid derivative, hydrophobic dendrimer, or a covalent conjugate between a single-chain alkyl, a double-chain alkyl, a steroid derivative, or a hydrophobic dendrimer and a polyalkylene glycol molecule comprising 1 to 20 monomeric units;

(e) or wherein one substituent is a polyalkylene glycol, a monosaccharide, or a polysaccharide, and the other substituent is a therapeutic molecule;

(f) or wherein one substituent is a hydrophilic therapeutic molecule, and the other substituent is a single-chain alkyl, a double-chain alkyl, a steroid derivative, or a hydrophobic dendrimers.

19. (Original) The composition according to claim 18, wherein G_1 and G_2 of said acid-sensitive compound are defined as in said substituent pairs (a), (b), (c) or (d); and wherein said composition further comprises at least one biologically active substance.

20. (Original) The composition according to Claim 19, wherein said biologically active substance is a nucleic acid, a peptide, an oligopeptide, a protein, an antigen, an antibody to said antigen, an enzyme, an inhibitor of said enzyme, a hormone, an antibiotic, an analgesic, a bronchodilator, an antimicrobial, an antihypertensive agent, a cardiovascular agent, an agent that acts on the central

nervous system, an antihistamine, an antidepressant, a tranquilizer, an anticonvulsant, an anti-inflammatory substance, a stimulant, an antiemetic agent, a diuretic agent, an antispasmodic agent, an antiischemic agent, an agent limiting cell death, or an anticancer agent.

21. (Original) The composition according to Claim 17, further comprising at least one adjuvant.

22. (Original) The compositions according to Claim 21, wherein said adjuvant comprises at least one neutral lipid.

23. (Original) The composition according to Claim 22, wherein said adjuvant comprises at least one neutral lipid chosen from natural zwitterionic lipids, synthetic zwitterionic lipids, and lipids lacking an ionic charge under physiological conditions.

24. (Original) The composition according to Claim 23, wherein said adjuvant comprises at least one neutral lipid chosen from dioleoylphosphatidylethanolamine (DOPE), oleoyl-palmitoylphosphatidylethanolamine (POPE), distearoyl-phosphatidylethanolamine (DSPE), dipalmitoylphosphatidylethanolamine (DPPE), dimirystoylphosphatidylethanolamine (DMPE), DOPE N-methylated 1 to 3 times, POPE N-methylated 1 to 3 times, DSPE N-methylated 1 to 3 times, DPPE N-methylated 1 to 3 times, phosphatidylglycerols, diacylglycerols, glycosyldiacylglycerols, cerebroside, sphingolipids, and asialogangliosides.

25. (Original) The composition according to Claim 24, wherein said adjuvant comprises at least one cerebroside chosen from galactocerebrosides.

26. (Currently Amended) The composition according to Claim 24, wherein said adjuvant comprises at least one sphingolipid chosen from sphingomyelins [[,]].

27. (Original) The composition according to Claim 24, wherein said adjuvant comprises at least one asialogangliosides chosen from asialoGM1 and asialoGM2.

28. (Original) The composition according to Claim 17, further comprising a pharmaceutically acceptable vehicle for an injectable formulation.

29. (Original) The composition according to Claim 17, further comprising a pharmaceutically acceptable vehicle for administration to skin or mucous membranes.

Claims 30-38. (Canceled)